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Atty. Dkt. No. 037010-0105

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: McRAE et al.

Title: METHOD AND SYSTEM FOR
INTEGRATED UNCERTAINTY
ANALYSIS

Appl. No.: 10/613,623

Filing Date: 07/03/2003

Examiner:

Art Unit: 3629

<p align="center">CERTIFICATE OF MAILING</p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below.</p> <p align="center"><u>DIANE GARCIA</u> (Printed Name)</p> <p align="center"><u>Diane Garcia</u> (Signature)</p> <p align="center"><u>12-28-04</u> (Date of Deposit)</p>
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INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

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Commissioner for Patents
P.O. Box 1450
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Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicants in order to comply with Applicants' duty of disclosure pursuant to 37 CFR §1.56.

A copy of each non-U.S. patent document and each non-patent document is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicants do not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), before the mailing date of the first Office Action on the merits.

RELEVANCE OF EACH DOCUMENT

All of the documents are in English.

Applicants respectfully request that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872.

Respectfully submitted,

Date 12-28-07

By Sanjeev K. Dhand

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Substitute for form 1449B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Application Number	10/613,623
Filing Date	07/03/2003
First Named Inventor	Gregory J. McRae
Group Art Unit	3629
Examiner Name	
Attorney Docket Number	037010-0105

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	A1	6173240		Sepulveda et al.	01-09-2001	

FOREIGN PATENT DOCUMENTS

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A2	Adomian, G., Stochastic system analysis, in <i>Applied Stochastic Processes</i> , edited by G. Adomian, pp. 1-17, Academic, San Diego, Calif., 1980	
	A3	Cukier, R.I., Fortuin, C.M., Shuler, K.E., Petschek, A.G., and Schaibly, J.H., Study of the sensitivity of coupled reaction systems to uncertainties in rate coefficients, I, Theory, <i>J. Chem. Phys.</i> , 59 , 3873-3878, 1973	
	A4	Derwent, R.G., Treating uncertainty in models of the atmospheric chemistry of nitrogen compounds, <i>Atmos. Environ.</i> , 21 , 1445-1454, 1987.	
	A5	Dunker, A.M., The Decoupled Direct Method for calculating sensitivity coefficients in chemical kinetics, <i>J. Chem. Phys.</i> , 81 (5), 2385-2303, 1984.	
	A6	Gao, D, Stockwell, W.R. and Milford, J.B. "First order sensitivity and uncertainty analysis for a regional scale gas phase chemical mechanism, <i>J. Geophysical Research</i> , 100 , 23, 153-23, 166, 1995.	
	A7	Gautschi, W., Algorithm 726: ORTHPOL--A package of routines for generating orthogonal polynomials and Gauss-type quadrature rules, <i>ACM Trans. Math. Software</i> , 20 (1), 21-26, 1994.	
	A8	Ghanem, R.G. and Spanos, P.D., <i>Stochastic Finite Elements; A Spectral Approach</i> , Springer-Verlag, New York, 1991 p. 72-81.	

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				Filing Date	07/03/2003
				First Named Inventor	Gregory J. McRae
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Sheet	2	of	3	Attorney Docket Number	037010-0105

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	A9	Koda, M., McRae, G.J. and Seinfeld, J.H., Automatic sensitivity analysis of kinetic mechanisms, <i>Int. J. Chemical Kinetics</i> , 11, 427-444, 1979.		
	A10	Kramer, M.A., Rabitz, H., Calo, J.M., and Kee, R.J., Sensitivity analysis in chemical kinetics: Recent developments and computational comparisons, <i>Int. J. Chem. Kinetics</i> , 16, 559-578, 1984.		
	A11	Lax, M.D., Approximate solution of random differential and integral equations, <i>App. Stochastic Process</i> , edited by G. Adomian, pp. 121-134, Academic, San Diego, Calif., 1980.		
	A12	McKay, M.D., Beckman, R.J., and Conover, W.J. , A comparison of three methods for selecting values of input variables in the analysis of output from a computer code, <i>Technometrics</i> , 21, 239-245, 1979.		
	A13	McRay et al., Global sensitivity analysis -- A computational implementation of the Fourier Amplitude Sensitivity Test (FAST), <i>Comp. Chem. Eng.</i> , 6, 15-25, 1982.		
	A14	Morgan, M.G., Henrion, M., and Small, M., <i>Uncertainty, A Guide to Dealing with Uncertainty in Quantitative Risk and Policy Analysis</i> , Cambridge University Press, New York, 1992.		
	A15	Papoulis, A. <i>Probability, Random Variables, and Stochastic Processes</i> , 3rd Edition, McGraw Hill, NY, 1991.		
	A16	Pierce, T.H. and Cukier, R.I., Global Nonlinear Sensitivity Analysis using Walsh functions, <i>J. Comput. Phys.</i> , 41, 427-443, 1981.		

Examiner Signature		Date Considered	
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	A17	Pan, W., Tatang, M.A., McRae, G.J. and Prinn, R.G., "Uncertainty Analysis of Direct Radiative Forcing by Anthropogenic Sulfate Aerosols, <i>J. Geophysical Research</i> , 102, (D18), 21,915-21,924, 1997.		
	A18	Serrano, S.E. and Unny, T.E., Random evolution equations in hydrogeology, <i>Applied Mathematics and Computation</i> , 39, 97s-122s, 1990.		
	A19	Tatang, M.A., <i>Direct Incorporation of Uncertainty in Chemical and Environmental Engineering Systems</i> , Ph.D. Thesis, Department of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, Massachusetts, 1995.		
	A20	Tatang, M.A., Pan, W., Prinn, R.G., and McRae, G.J. "An Efficient Method for Parametric Uncertainty Analysis of Numerical Geophysical Models, <i>J. Geophysical Research</i> , 102, (D18), 21,925-21,932, 1997.		
	A21	Wiener, N., The homogeneous chaos, <i>Amer. J. Math.</i> , 60, 897-936, 1938.		

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